5-919 Patent

COMPOSITE TANGLED FILAMENT MAT
WITH OVERLYING LIQUID MOISTURE BARRIER
FOR CUSHIONING AND VENTING OF VAPOR,
AND FOR PROTECTION OF UNDERLYING SUBFLOOR

Abstract of the Disclosure

A composite mat and sheet structure for installation atop a subfloor to underlie a layer of hardenable, cementicious material such as gypsum concrete or Portland concrete that is poured atop the composite structure to harden in situ. The composite structure includes 1) a mat of substantially uniform thickness defined by an array of entangled, intertwined polymeric filaments that twist and turn at random, that are spaced from each other along a majority of their lengths, that preferably are bonded at their randomly located intersections, and that cooperate to give the mat an open-space character well suited for venting vapor from an area beneath the layer of hardenable cementicious material during hardening or curing thereof; and 2) a sheet of barrier material that overlies the mat, is bonded to the mat, and is pervious to water vapor but impervious to water in liquid form, thereby to permit water in vapor form to escape from the hardenable material through the barrier sheet into the mat and to be vented through the open-space area of the mat while the barrier sheet protects the subfloor from damage by water in liquid form that should be confined atop the barrier.